

APPENDIX 1. Self-Efficacy Questionnaire

Speaking skills self-efficacy beliefs

Name: Gender: Age:

SD = strongly disagree; D = disagree; N = neutral; A = agree; SA = strongly agree

No	Items	SD	D	N	A	SA
1.	I have enough ability to improve my speaking skills.					
2.	I am sure that if I practice speaking more, I will get better grades in the course.					
3.	I can speak better than my classmates.					
4.	Even if the speaking task is difficult and I don't have the required vocabulary, I can find the strategy to get the message across.					
5.	I am not stressed out when speaking English in the classroom.					
6.	I enjoy speaking with a proficient partner.					
7.	I am one of the best students in speaking courses.					
8.	I enjoy meeting tourists because I can speak with them well.					
9.	The more difficult the speaking practice is, the more enjoyable it is.					
10.	When the instructor asks a question, I raise my hand to answer it even if I'm not sure about it.					
11.	I'm confident about my ability to interact with other English speakers.					
12.	While speaking, I can deal efficiently with unexpected situations.					

13.	While speaking, I can remain calm when facing difficulties.					
14.	When I'm talking with fluent speakers, I let them know if I need help.					
15.	I'm confident I can communicate what I mean easily.					
16.	I feel confident that I can achieve a native-like accuracy in speaking.					
17.	I'm able to actively participate in my speaking classes.					
18.	I'm sure I can use English outside the classroom.					
19.	I believe I am a good English speaker.					
20.	I strongly believe that I can achieve native-like fluency in English.					
21.	I can describe my university to others in English.					
22.	I can tell a story in English.					
23.	I can ask my teachers questions in English.					
24.	I can produce sentences with idiomatic expressions.					
25.	I can introduce my teacher to someone else in English.					
26.	I can discuss subjects of my interest with my classmates.					
27.	I can introduce myself in English.					
28.	I can answer my teachers' questions in English.					

APPENDIX 2. Brown's 2004 Scoring Rubric

Level	Grammar	Vocabulary	Fluency	Pronunciation	Comprehension / Task
I	Errors in grammar are frequent, but speaker can be understood by a native speaker used to dealing with foreigners.	Speaking vocabulary inadequate to express anything but the most elementary needs.	(No specific fluency description, refer to other areas.)	Errors in pronunciation are frequent but can be understood by a native speaker used to dealing with foreigners.	Within very limited experience, can understand simple questions if delivered slowly with repetition/paraphrase. Can ask/answer familiar questions and handle basic travel needs.
II	Can handle elementary constructions quite accurately but lacks full control of grammar.	Has sufficient vocabulary to express himself simply with some circumlocution.	Can handle with confidence but not fluently most social situations (introductions, daily topics, etc.).	Accent is intelligible though often faulty.	Can get gist of most non-technical conversations. Able to satisfy routine social/work needs but needs help with complications.
III	Control of grammar is good, sufficient structural accuracy for most conversations.	Vocabulary sufficient for most formal/informal conversations, rarely searches for words.	Can discuss interests with reasonable ease, rarely has to grope for words.	Errors rarely interfere, accent may be foreign.	Comprehension quite complete at normal speech rate.
IV	Able to use language accurately for professional needs; errors are rare.	High degree of vocabulary precision within experience range.	Able to use language fluently in most professional contexts.	Errors in pronunciation are quite rare.	Can understand any conversation within range of experience.
V	Equivalent to an educated native speaker.	Vocabulary fully accepted including idioms, colloquialisms, cultural references.	Complete fluency, fully accepted by educated native speakers.	Equivalent to educated native speaker.	Speaking proficiency equivalent to educated native speaker.

APPENDIX 3. Data Tabulation

Experimental Group				Control Group			
Pre_SP	Post_SP	Pre_SE	Post_SE	Pre_SP	Post_SP	Pre_SE	Post_SE
73	82	84	90	74	77	134	138
77	81	109	127	73	77	90	92
71	81	94	89	75	78	94	96
74	79	98	104	76	80	111	119
74	80	114	112	75	81	97	90
80	84	125	120	73	77	51	74
75	79	128	132	74	77	89	88
77	84	91	112	72	76	84	82
75	82	93	88	72	77	81	91
74	81	128	133	71	78	84	84
75	81	96	103	75	80	113	133
72	78	85	89	73	78	107	117
73	78	83	81	72	81	91	105
74	81	62	86	74	82	113	115
74	82	81	96	78	83	108	114
80	83	100	122	78	83	129	132
75	80	111	108	74	79	62	109
72	77	67	77	76	79	96	129
80	84	106	108	71	75	77	73
72	78	105	119	74	77	112	112
71	77	90	89	74	76	102	119
76	82	100	103	72	77	88	94
75	82	103	122	73	76	76	84
72	79	115	130	78	84	120	112
81	83	104	110	72	80	106	102
81	82	84	109	74	79	74	71
74	81	70	71				

APPENDIX 4. Researcher's Notes

<p>Observation Identity</p> <ul style="list-style-type: none"> • Date: March 15, 2025 • Group: Experimental Group • Meeting: 2 <p>General Activity Notes:</p> <ol style="list-style-type: none"> 1. Students experienced several difficulties in using AI because it sometimes encountered errors. 2. When recording speaking videos for the first time, students often repeated their recordings because they made mistakes and felt nervous. 	<p>Observation Identity</p> <ul style="list-style-type: none"> • Date: March 20, 2025 • Group: Control Group • Meeting: 2 <p>General Activity Notes:</p> <ol style="list-style-type: none"> 1. At the beginning of the session, most students seemed quite enthusiastic about using the e-portfolio, but were still unsure about how to provide constructive peer feedback. 2. The quality of peer feedback provided by students varied. Some students began to be able to offer input regarding pronunciation and vocabulary, but it was still limited to visual aspects and lacked depth.
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<p>Observation Identity</p> <ul style="list-style-type: none"> • Date: May 10, 2025 • Group: Experimental Group • Meeting: 6 <p>General Activity Notes:</p> <ol style="list-style-type: none"> 1. Slowly, the students are getting used to it and often record themselves on the spot 2. Some students still refer to the speaking scripts they've prepared 	<p>Observation Identity</p> <ul style="list-style-type: none"> • Date: May 16, 2025 • Group: Control Group • Meeting: 6 <p>General Activity Notes:</p> <ol style="list-style-type: none"> 1. Over time, there was an improvement in students' ability to provide feedback, although the improvement was not very noticeable. 2. Student engagement in peer feedback activities was quite good, though not all students were active. 3. Students began to show greater confidence in completing speaking tasks through the e-portfolio.
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<p>Observation Identity</p> <ul style="list-style-type: none"> • Date: May 23, 2025 • Group: Experimental Group • Meeting: 9 	<p>Observation Identity</p> <ul style="list-style-type: none"> • Date: May 23, 2025 • Group: Control Group • Meeting: 9
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<p>General Activity Notes:</p> <ol style="list-style-type: none"> 1. Most students showed high levels of enthusiasm during speaking activities, especially when using technology-based media. 2. Students with high self-efficacy tended to participate more actively in speaking activities, such as answering questions and engaging in discussions. 3. Some students still struggled with vocabulary, which affected their confidence when speaking. 	<p>General Activity Notes:</p> <ol style="list-style-type: none"> 1. From the middle to the end of the intervention, there was a decline in engagement. Students tended to provide shorter and less in-depth comments.
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<p>Observation Identity</p> <ul style="list-style-type: none"> • Date: June 14, 2025 • Group: Experimental Group • Meeting: 10 <p>General Activity Notes:</p> <ol style="list-style-type: none"> 1. It was found that repeated speaking practice helps gradually boost students' confidence. 2. Students appeared more comfortable speaking with their peers than speaking in front of the class or with more proficient speakers. 3. The use of AI helped some students generate ideas and improve sentence structure, but not all students made optimal use of it.
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<p>Observation Identity</p> <ul style="list-style-type: none"> • Date: July 10, 2025 • Group: Experimental Group • Meeting: 11 <p>General Activity Notes:</p> <ol style="list-style-type: none"> 1. Some students showed increased self-confidence after receiving positive and constructive feedback from AI.
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